

EPA Limetree Refinery On-Site Visit

Date: 5/21/2021

Start Time: 9:00 AM

End Time: 11:30 AM

Participants:

DPNR – Austin Callwood

EPA – On-Site / Zeno Bain, Alex Rivera, Kim Staiger

Via phone / Pat Foley, Robert Buettner, Francesco Maimone and Harish Patel

Limetree – Catherine Elizee (Environmental Superintendent), Fermin Rodriguez (Compliance Consultant), Sloan Schoyer (Compliance Consultant)

Neil Morgan, Plant VP of Operations – Met with team briefly at 9:00 AM – Expressed support to Catherine Elizee and how hard she is working to comply with EPA's request of information. Informed us that they rely on her for everything because of her vast institutional knowledge.

Questionnaire

1. Where are you in the "nitrogen sweep" process? How much longer will it take to complete it.

According to Eng. Fermin Rodriguez, the term "nitrogen sweep" was misunderstood. The facility generated nitrogen blankets to displace combustible gases from units and prevent any ignitable atmosphere. Such process was only performed to certain units, and currently all units are down and none are waiting for such process to be performed.

2. Limetree Bay windfinder station? Catherine was not aware about the Limetree Bay station available on windfinder.com. Catherine confirmed that the station is not located within the facility and Limetree does not know who owns and manage the source of the information being used by windfinder.com. Catherine stated that they have always used the airport station information.

For the gas stream going to the flare are you measuring the BTU content? Is supplemental gas being added? Are waste gas flow and steam flow being measured?

According to Catherine yes, the waste gas flow and steam flow are measured. Limetree uses steam flow meter, flow totalizer, and a mass spectrometer that measures net heating value analyzer for BTU. According to Catherine, the flare is not being monitored for compliance with 270 BTU requirements because they have a time extension from DPNR to comply with.

Any data to share? If the parameters are being measured we should try to get waste gas flow (scfm) waste gas net heating value (BTU/scf), steam flow (scfm), and supplemental

gas flow (scfm) on 15-minute averages from 8 pm Tuesday May 18 to 8 am Wednesday May 19 and from 8 pm Wednesday May 19, to 8 am Thursday May 20.

Catherine agreed on providing the data on Monday (spreadsheet) 15 min average. Need to calculate the 15 min averages manually.

3. What are the next steps in the “shut down process”? When are you planning to open up vessels for internal inspection. According to Fermin Rodriguez, all units are currently shut down, no temperature to generate any gas. Nitrogen blanket use to prevent ignitable atmosphere at some of the units. There are no plans to open any vessels. Platformer #4 will be open to reinstate its reactor, but that was already planned. Maintenance and operations are coordinating to verify if any further maintenance work is needed. The power generation units were change from burning propane to liquid fuel oil (ultra-low sulfur diesel). Purchased propane (not refinery produced propane gas) is currently being flared.

According to Fermin Rodriguez, the only activity pending in order to shut down Flare #8 is the cleaning of some components of the Coker Unit that need to be cleaned and flushed, the activity might generate the need of conveying some gases to Flare #8. Once that activity is completed, Flare #8 will be taken down for inspection.

4. Are there any process vessels with catalysts that need to be inspected? No plans to open any vessels for inspection.
5. How is the flare #8 operating? Has the tip and upper part of the flare stack been evaluated for damage? Does it need to be replaced? According to Catherine Elizee, the facility will be taking Flare #8 down for assessment. The pilot will be turned down to facilitate the assessment. The facility still not certain of the damages. An engineering scaffold is currently being installed in order to conduct Flare #8 inspection. No formal damage assessment being performed, no knowledge of any specific damage yet. Engineering company to install the scaffold is a certified engineering scaffolding contractor. A certified engineering company will be conducting the flare inspection.
6. Any updates on procuring the SO₂ monitors? Any time schedules you can share? Eng. Slone Schoyer is managing the project. Eng. Schoyer has been in constant communication with EPA’s Kim Staiger to facilitate access and all other actions EPA has undertaken. Eng. Schoyer provided a status of Limetree’s efforts to provide power from WAPA to stations. According to Eng. Schoyer, Limetree SO₂ monitors procurement process is moving along, and he does not know of any issues that might cause a delay in the process so far.